Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims

~~[1]~~ 1. (Currently amended) An electrophotographic developing roller having a cylindrical metal base body and a metal flange as press fitted in an opening end section of said cylindrical metal base body, ~~the developing roller being characterized in that~~ wherein said metal flange has a larger diameter section for fitting in ~~the~~ an opening end section inner surface of said cylindrical metal base body and a smaller diameter section serving as a central shaft body coaxial with said cylindrical metal base body; and ~~that the~~ wherein a fit section surface of said larger diameter section before being press fitted has an uneven shape such that a maximum roughness Ry due to a circumferential groove formed by cutting processing is from 25 μm to 70 μm.

~~[2]~~ 2. (Currently amended) An electrophotographic developing roller having a cylindrical metal base body and a metal flange as press fitted in an opening end section of said cylindrical metal base body, ~~the developing roller being characterized in that~~ wherein said metal flange has a larger diameter section for fitting in ~~the~~ an opening end section inner surface of said cylindrical metal base body and a smaller diameter section serving as a central shaft body coaxial with said cylindrical metal base body; and ~~that the~~ wherein a fit section surface of the opening end section inner surface of said cylindrical metal base body before being press fitted has an uneven shape such that a maximum roughness Ry due to a circumferential groove formed by cutting processing is from 25 μm to 70 μm.

~~[3]~~ 3. (Currently amended) The electrophotographic developing roller according to claim 1 ~~or 2~~, ~~characterized in that~~ wherein an adhesive is used in said fit section.

~~[4]~~ 4. (Currently amended) The electrophotographic developing roller according to claim 3, ~~characterized in that~~ wherein said adhesive is an anaerobic adhesive.

~~[5]~~ 5. (Currently amended) The electrophotographic developing roller according to ~~any one of claims 1 to 4~~ claim 1, ~~characterized in that~~ wherein a countersunk section is provided on the opening end section inner surface of said cylindrical metal base body.

~~[6]~~ 6. (Currently amended) The electrophotographic developing roller according to ~~any one of claims 1 to 5~~ claim 1, ~~characterized in that the~~ wherein a thickness of said cylindrical metal base body is from 0.75 mm to 2 mm; and ~~that the~~ an interference at ~~the~~ a time of press fitting is from 10 μm to 60 μm.

~~[7]~~ 7. (Currently amended) The electrophotographic developing roller according to ~~any one of claims 1 to 6~~ claim 1, ~~characterized in that~~ wherein said cylindrical metal base body and said metal flange are each made of steel or an aluminum based alloy as ~~the~~ a principal material.

~~[8]~~ 8. (Currently amended) The electrophotographic developing roller according to ~~any one of claims 1 to 6~~ claim 1, ~~characterized in that~~ wherein said cylindrical metal base body is made of a carbon steel tube containing not more than 0.25% by weight of carbon, not more than 0.30% by weight of silicon, and not more than 0.85% by weight of manganese.

~~[9]~~ 9. (Currently amended) An electrophotographic developing roller having at least a cylindrical metal base body, ~~which comes~~ for coming into contact with or ~~becomes~~ becoming adjacent to a photoreceptor, thereby feeding a developer on ~~the~~ a surface of said photoreceptor and developing an electrostatic latent image formed on said photoreceptor, ~~the developing roller being characterized in that~~ wherein said cylindrical metal base body is made of a carbon steel tube containing not more than 0.25% by weight of carbon, not more than 0.30% by weight of silicon, and not more than 0.85% by weight of manganese, respectively.

~~[10]~~ 10. (Currently amended) The electrophotographic developing roller according to ~~any one of claims 1 to 6~~ claim 1, ~~characterized in that~~ wherein said cylindrical metal base body is made of an STKM11A carbon steel tube (JIS G3445).

~~[11]~~ 11. (Currently amended) An electrophotographic developing roller having at least a cylindrical metal base body, ~~which comes~~ for coming into contact with or ~~becomes~~ becoming adjacent to a photoreceptor, thereby feeding a developer on ~~the~~ a surface of said photoreceptor and developing an electrostatic latent image formed on said photoreceptor, ~~the developing roller being characterized in that~~ wherein said cylindrical metal base body is made of an STKM11A carbon steel tube (JIS G3445).

~~[12]~~ 12. (Currently amended) The electrophotographic developing roller according to ~~any one of claims 1 to 11~~ claim 1,
~~characterized in that~~ wherein said cylindrical metal base body is an electro-resistance-welded tube.

~~[13]~~ 13. (Currently amended) The electrophotographic developing roller according to ~~any one of claims 1 to 12~~ claim 1, ~~characterized in that~~ wherein said cylindrical metal base body is subjected to cutting processing or polishing processing.

~~[14]~~ 14. (Currently amended) The electrophotographic developing roller according to ~~any one of claims 1 to 13~~ claim 1, ~~characterized in that the~~ wherein an outer surface of said cylindrical metal base body is subjected to a blast treatment.

~~[15]~~ 15. (Currently amended) The electrophotographic developing roller according to ~~any one of claims 1 to 13~~ claim 1, ~~characterized in that the~~ wherein an outer surface of said cylindrical metal base body is subjected to metal plating.

~~[16]~~ 16. (Currently amended) The electrophotographic developing roller according to claim 14, ~~characterized in that~~ wherein the outer surface of said cylindrical metal base body having been subjected to a blast treatment is further subjected to metal plating.

~~[17]~~ 17. (Currently amended) The electrophotographic developing roller according to claim 15 ~~or 16~~, ~~characterized in that~~ wherein said metal plating is electroless nickel plating.

~~[18]~~ 18. (Currently amended) The electrophotographic developing roller according to ~~any one of claims 15 to 17~~ claim 15, ~~characterized in that~~ wherein the outer surface of said cylindrical metal base body having been subjected to metal plating is further subjected to a chromate treatment.

~~[19]~~ 19. (Currently amended) The electrophotographic developing roller according to ~~any one of claims 15 to 18~~ claim 15, ~~characterized in that~~ wherein said metal plating is achieved without performing a zinc alloy film formation treatment in advance.

~~[20]~~ 20. (Currently amended) The electrophotographic developing roller according to ~~any one of claims 1 to 19~~ claim 1, ~~characterized in that~~ wherein said cylindrical metal base body has a straightness of not more than 15 μm.

~~[21]~~ 21. (Currently amended) The electrophotographic developing roller according to ~~any one of claims 1 to 20~~ claim 1, ~~characterized in that~~ wherein said cylindrical metal base body has a deflection accuracy of not more than 20 μm.

~~[22]~~ 22. (Currently amended) The electrophotographic developing roller according to ~~any one of claims 1 to 21~~ claim 1, ~~characterized in that~~ wherein said electrophotographic developing roller is used in an electrophotographic device of a non-magnetic one-component non-contact development system.

~~[23]~~ 23. (Currently amended) The electrophotographic developing roller according to ~~any one of claims 1 to 22~~ claim 1, ~~characterized in that~~ wherein said electrophotographic developing roller is used in a color electrophotographic device.

~~[24]~~ 24. (Currently amended) An image forming device, ~~characterized by being~~ wherein the image forming device is mounted with the electrophotographic developing roller according to ~~any one of claims 1 to 23~~ claim 1.